



Draft Environmental Assessment

# Clallam Bay Park Footbridge and Trail Relocation

Washington State Parks/Clallam County Public Works  
FEMA-1499-DR-WA

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**FEMA**

**U.S. Department of Homeland Security**  
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## 1.0 INTRODUCTION

The Washington State Parks and Recreation Commission (State Parks) and Clallam County Public Works Department (County), Washington, have applied through the Washington State Emergency Management Division (EMD) to the U.S. Department of Homeland Security's Federal Emergency Management Agency (FEMA) for assistance to relocate and repair the Clallam Bay Park footbridge and trail. The footbridge and trail were damaged during the October 15-23, 2003 severe storms and flooding. The event was declared a presidential disaster on November 7, 2003 (FEMA-1499-DR-WA). FEMA is proposing to fund 75 percent of the cost for this project through its Public Assistance program.

The National Environmental Policy Act of 1969 (NEPA), the Council on Environmental Quality (CEQ) regulations implementing NEPA (40 Code of Federal Regulations [CFRs] Parts 1500 through 1508), and FEMA regulations for NEPA compliance (44 CFR Part 10) direct FEMA and other federal agencies to fully understand and take into consideration environmental consequences of proposed federally funded projects. In compliance with NEPA and its implementing regulations, FEMA has prepared this draft environmental assessment (EA) to analyze potential environmental impacts of alternatives.

Clallam Bay Park suffered severe damage due to flooding during the October 2003 event. The Clallam River flooded the park footbridge and trail system connecting the parking area (adjacent to Highway 112) the sand spit, beach and picnic sites. Since the event, the river has breached a new mouth immediately east of the footbridge, turning the former portion of the river west of the bridge into a tidal backwater estuary. The damage to the footbridge and trail has isolated the beach and picnic sites.

The park is 33 acres and jointly managed by State Parks and the County. It is located on the Olympic Peninsula (see Appendix A – Regional Overview – Clallam Bay, Washington) on the northern edge of the town of Clallam Bay and is bordered by the Strait of Juan de Fuca. Clallam Bay is 50 miles west of Port Angeles, the Olympic Peninsula's principal population center, and about 95 miles northwesterly of Seattle. It is connected by Highway 112, which was designated as a National Scenic Byway on June 15, 2000.

## 2.0 PURPOSE AND NEED FOR ACTION

The purpose of FEMA's Public Assistance (PA) Program is to repair and restore properties and facilities damaged during natural disasters. Through this program, FEMA provides financial assistance to states, local governments, tribal governments and U.S. territories after the declaration of a major disaster. The need for the action is to provide safe, cost effective, and continuous access to the sand spit, beach, and picnic sites. In addition, the access needs to be Americans with Disabilities Act compliant and convenient to parking and restrooms.

### 3.0 ALTERNATIVE ANALYSIS

The following sections discuss the five (5) alternatives considered (the last 2 of the 5 were not carried forward): Relocate the bridge and trail (Preferred Alternative), Repair the bridge and trail in their existing location, No action, Construct a land crossing, and Use the former Fitzpatrick bridge site. See Appendix B – Clallam Bay Park Bridge Relocation Site Map.

#### 3.1 **Alternative 1 – Relocate Clallam County Park Footbridge and Trail (Preferred Alternative)**

Under the Preferred Alternative, the existing footbridge would be removed and relocated approximately 400 feet west, a trail would be constructed south of the Clallam River to connect the existing trail to the south end of the relocated bridge, and a trail would be constructed on the sand spit to connect the north end of the bridge to the existing beach trail. This alternative was chosen because it meets the needs and the location offers significantly more protection from storm and flood events. The sand spit at this location is considered more stable due to its increased width and the existence of a large concentration of old trees in the immediate vicinity.

The scope of work for relocating the bridge includes marking, dismantling, and storing the existing bridge; driving steel pilings for bridge support at the new site; constructing abutments and approaches; moving the bridge superstructure (wooden beams) to the new location, placing them on the pilings and abutments; and rebuilding the deck and railings. The south bridge abutment would be aligned with a large alder tree growing on relatively high ground on the bank. Pilings used for bridge support would be driven to avoid emergent wetland vegetation along the shoreline. The north side of the bridge would be connected to an upland area with a steep bank next to the channel. The bridge would also be raised to keep it above the 100-year flood elevation.

The existing 200-foot long trail from the parking lot to the existing bridge would be extended to the relocated bridge. The new extension (8 feet wide by 400 feet long) would be constructed on the south side of the estuary (former path of the Clallam River). The trail would connect the parking lot to the new bridge location and would be randomly located to avoid impacting large significant trees. The trail would also be used for construction and maintenance access.

An 8 feet wide by 200 feet long trail would be constructed on the sand spit to connect the north end of the bridge to the existing beach trail. The trail would be at grade, surfaced with crushed rock, and randomly located to avoid impacting large significant trees. The trail would also be used for maintenance access.

As part of the project development process FEMA sponsored a Project Scoping Meeting (April 1, 2005) at the Community Center in Sekui, Washington. Representatives from resource agencies requested the following items be included in the scope of work to balance Floodplain and Wetland values and characteristics associated with relocating the bridge and constructing the trails:

- Construct the trails so the final surface elevations would be at existing ground level.
- Design and construct the bridge to provide clearance above the 100-year flood (add freeboard to include debris clearance).
- Use elevated ramps to connect the bridge ends to the “at grade trails” (rather than import fill material).
- Remove the creosote-treated pilings and abutment fill material at the existing bridge site and dispose of at an approved disposal location. Some seeding and revegetation would be required at disturbed areas.
- Remove the old Fitzpatrick Bridge abutments and disposed of at an approved disposal location. Some seeding and revegetation would be required at disturbed areas.
- Remove debris and old trail remnants (including but not limited: to pipe, abandoned appliances, and asphalt) within reasonable reach of the project area. Use native materials to revegetate disturbed areas.

Following the Project Scoping Meeting the attendees visited the site to view the proposed bridge site and desirable south side trail location. At the recommendation of Washington Department of Fish and Wildlife (WDFW) biologist Bob Burkle the new trail would follow the south property line. This location would likely require a continuation of a cyclone-and-slat fence that extends part way in order to protect the integrity of the park and satisfy private landowners. The trail would begin with a ramp running down a filled area along the fence, crossing a swale and connecting to the footbridge abutment at the south side of the tidal distributary. The ramp would be approximately 20-30 feet long. The trail would continue at grade and be surfaced with crushed rock along the fence line. The surface elevation would not be raised so the flood storage would not be compromised. As the trail continues along the property line it would pass an open fen to the north, adjacent to a tidal distributary. After the fen is crossed, the trail would turn towards the tidal backwater, following a route through the highest ground.



**Photo 3.1.1 – Proposed trail location.**



**Photo 3.1.2 – Southwest view of proposed trail location from existing bridge.**

Once the trail reaches an alder tree approximately halfway from the property line to the river, there is a clump of salal growing on high ground that delineates a good route. Just past the salal towards the old river channel the trail would need a ramp to reach the bridge. Access would be via a ramp, beginning at grade after the aforementioned salal patch about 30-40 feet from the proposed bridge location. See Appendix B – Clallam Bay Park Bridge Relocation Site Map for the general location of the proposed trail relocation route.

Damaged portions of the existing beach trail on the sand spit would be repaired. In addition about 200 linear feet of damaged beach trail and revetment would be abandoned and obliterated.

Final footbridge and trail specifications would be designed to meet all local, state and federal permit and regulatory requirements, including the JARPA permit process and the Americans with Disabilities Act of 1990. A detailed topographic survey of the site would be conducted and used to determine the exact location and design, including any lengthening required for the bridge, placement of the bridge abutments, and ensuring the trail is located above the ordinary high water mark (OHWM). As a result of the design and cost estimating process building a new bridge rather than relocating the existing bridge may be more cost effective for the site. If this is the case, a new bridge will be constructed at the proposed relocation site and the existing bridge will be dismantled and used at a different Washington State Park.

All work would be done in accordance with permit requirements including work windows, Conservation Measures, and Best Management Practices (BMPs).

### **3.2 Alternative 2 – Repair the Clallam County Park Footbridge and Trail at Existing Location**

Under Alternative 2, the existing footbridge and trail would be repaired at their current locations. The Clallam River would be shoved easterly to avoid the north bridge approach and trail. Fill would be placed to recreate the north approach and trail. A combination of piling, rock riprap, and large woody material (LWM) would be used to armor the new fill. An extension to the existing bridge may be required due to the erosive forces caused by the relocation of the river. All work would be conducted in the existing footprint of the bridge and trail, in an area that has been previously disturbed. The beach trail on the sand spit would be repaired.

This site would be subject to repetitive damage and would continue to be at risk from future flood hazard events and the dynamic nature of the sand spit.

### **3.3 Alternative 3 – No Action Alternative**

Under the No Action Alternative, FEMA would not provide funding to provide access to the spit. Existing conditions at the site would continue, no measures would be taken to mitigate future flood damage, and the bridge would continue to be at risk from future flood hazard events and river channel movements. This alternative would not meet the project needs.

### **3.4 Alternatives Considered But Not Carried Forward**

Prior to the October 2003 flooding, the vulnerability of the existing footbridge was discussed at two public meetings held in January and February of 2003. Various alternatives to establish access to the park were considered. The dilemma faced when considering other locations is largely regarding the ability to maintain public access and still have a direct connection to the existing parking lot and restrooms. Some citizens initially supported reconstructing and stabilizing the river mouth at the western border of the bay, but this was discarded due to significant environmental and economic concerns. When the issue wasn't resolved, the Clallam Bay Chamber of Commerce hired Coastal Geologic Services, Inc., (CGS), to conduct a study to determine the best approach to restore the eroded beach, stabilize the river mouth, and save bridge access to the sand spit. The CGS report was published in July 2004 and used as a tool by State Parks and the County to assist in the consideration of the various alternatives.

One alternative considered but not carried forward was to construct a land crossing at the western edge of the bay at the mouth of the former river (eliminating the bridge). Sites considered included the Spring Tavern location and private parcels between the estuary and the highway. Informal discussions with landowners indicated they may be amenable to discuss selling, but further discussion was not carried forward due to the lack of funding for such acquisitions and the distance from the existing parking lot and restrooms.

Another alternative reviewed included relocating the bridge at the site of the former Fitzpatrick Bridge, west of the proposed relocation site. The bridge was previously owned by the County but was abandoned in the mid 1980s. Although the bridge structure is gone, its abutments on each side of the former river channel remain and could be used if the existing bridge was extended to meet increased width requirements. Access to the bridge would involve a considerable increase in distance from the existing parking lot and restrooms. The alternative was dropped due to the increased costs related to lengthening the bridge and obtaining public access over private land and the distance from the existing parking lot and restrooms.

## **4.0 AFFECTED ENVIRONMENT AND ENVIRONMENTAL CONSEQUENCES**

The following sections discuss the existing conditions by resource and the potential effects of the three alternatives considered.

### **4.1 Climate, Geology and Soils**

Clallam Bay is located on the Olympic Peninsula along the Strait of Juan de Fuca. It is situated in the rain shadow of the northern Olympic Mountains and receives an average of 85 inches of rain per year. Temperatures range from 60-75 degrees Fahrenheit (°F) in the summer and 30-45 °F in the winter. The Olympics are separated from the coastal



mountain ranges that extend from southern Canada to Mexico and were developed as a separate uplift. They are characterized by steep jagged peaks, forested canyons, alpine and subalpine terrain, major rivers, flowered meadows, barren rocky expanses, and glacial ice.

In Clallam County, the soils have developed chiefly on gravely glacial-drift and glacial-outwash deposits of gravel, sand, and silt. Most of the soils in the county have good drainage. The Clallam Bay nearshore and sand spit are influenced by complex interactions related to sediment transport, deposition, and erosion. The shape of the sand spit has seasonal variations. The amount of upland sediment transported by rivers and streams (fluvial) is influenced by rainfall, channel migration, and land use practices. The movement of coastal (littoral) sediments is influenced by wind, waves, currents, and floods. The project area (including spit, river channel, tidal backwater and area south of the river) is composed of loose (unconsolidated) sandy material of undetermined depth, grain size and bearing capacity. The material lacks cohesion. Because the material lacks cohesion and is not compacted it is easily eroded and subject to littoral drift.

Near shore currents and wave refraction, together with low flow, combine to seasonally close the river mouth during the dry season (summer and early fall). On several occasions during mid to late fall the river breaches naturally allowing fish access between the Clallam River and Clallam Bay. At times the spit has been manually breached in order to reduce the impact to fish stranded by natural closure.

A large rotational deep-seated landslide located on the western margin of the former Clallam River mouth is considered active and Washington State Department of Transportation crews need to continually patch Highway 112 in the area. In addition, the Public Utility District has to continually release the tension in power lines for this area due to shifts caused by the landslides. There are indications landslides in this area are causing the riverbed west of the current mouth to lift; however, speculation regarding riverbed elevation changes is considered conjecture until further studies are conducted (Parks 2005). If these claims are eventually substantiated, it unlikely the riverbed would occupy its former channel and exit to Clallam Bay to the west. Until further studies are concluded, the extent of influence on river channel morphology remains speculation.

### ***Environmental Consequences:***

#### **Alternative 1 – Relocate Clallam County Park Footbridge and Trail (Preferred Alternative)**

Under Alternative 1, the footbridge would be relocated to a site with increased protection and stability and would connect to a wider section of the sand spit. The site is less vulnerable to erosive forces and would have a better chance of survival. However, it is possible the river channel may migrate back into this area and could ultimately damage the relocated bridge and trail at some unknown date during future flood events.

Soil/foundation testing and analysis would be required to design the bridge and elevated ramp foundation systems (including but not limited to pile size, number, distribution, and penetration). In addition design considerations would need to account for flood forces (including velocity, buoyancy, and debris), tidal ebbs and flows and soil stability in the

vicinity. Measures taken would need to follow design specifications required by the permit process. Construction BMPs for sediment and erosion controls along with timing windows would be required to reduce the potential for impact.

Loss of vegetation at the new construction site may increase short and long-term soil erosion. Analyzing the soils, moisture, vegetation, exposure, and potential erosive forces prior to disturbance then designing and applying temporary and permanent control measures (i.e. mulching, matting, planting native vegetation, and/or reinforcing banks using bio-engineering techniques) would mitigate this condition. Based on visual observations the existing soils and moisture conditions support a wide variety of native plant material.

#### Alternative 2 – Repair the Clallam County Park Footbridge and Trail at Existing Location

Under Alternative 2, the northern approach to the existing footbridge and associated trail would be repaired in a previously disturbed area and is not anticipated to adversely impact geology or soil characteristics. The north bridge abutment and trail would be stabilized with a combination LWM, piling, and rock riprap to reduce the potential for erosion damage. The current river outlet to Clallam Bay would be shoved easterly into the sand spit to provide flow capacity. The site would remain vulnerable during future flood hazard events and from river channel migration. For construction, temporary erosion control measures included in the BMPs would be implemented to reduce the potential for impact. Loss of vegetation may increase short-term soil erosion, but revegetation of the affected area would mitigate this condition. Changes in the river channel would remain a probability and anticipation of future damage to the structure would need to be taken into consideration. Additional mitigation measures would be necessary to reinforce the footbridge and provide protection from the migrating river channel during future hazard events. This may include implementing mitigation measures upstream of the site in anticipation of future events. They may help to protect the footbridge from future channel migration.

#### Alternative 3 – No Action Alternative

Under Alternative 3, the geology and soils in the project area would remain in the existing condition. Surface conditions on the northern approach for the footbridge approach would remain unstable and unsafe for public access. There is currently an approximate 10-foot drop at the north end of the footbridge. The south end of the bridge has been barricaded to preclude pedestrian entry. The connecting trail to the picnic sites on the sand spit would also remain damaged and unusable. The northern footbridge approach and associated trail would continue to be at risk from geomorphologic forces during changes in the river channel and from future flood hazard events.

## **4.2 Water Resources**

The Clallam River is a tributary to the western Strait of Juan de Fuca, which has 176 miles of shoreline and is considered a critical component of the Puget Sound ecosystem. The river's mouth (exit through the sand spit) is currently located immediately east of and under the existing footbridge, in the middle of a well-formed sand spit in the center of

Clallam Bay. Prior to the flooding in October 2003, the mouth of the river was approximately 0.7 miles west of the current mouth.

In addition to naturally occurring seasonal closures occurring at the river's mouth, the river also meanders. Many factors influence the frequency and duration of changes to the river, including increased sedimentation from forest practices, alterations of the river's course from wood removal, culverts and dikes, and changes in elevation on the western portion of the bay due to rotation of the deep-seated landslide.

Historically, the location of the Clallam River mouth has varied from the far western to far eastern ends of this portion of the bay. A large landslide defines the western boundary of the river mouth location and the eastern portion of the town of Clallam Bay borders the eastern boundary. Significant changes have occurred in the river mouth and estuary since the late 19<sup>th</sup> century (Shaffer et. al., 2003). Beginning in the late 1800s, modifications to the area resulted from logging support operations (wood clearing from the lower river) and construction (roads, rail and pier structures). Alterations still in place from these activities include fill material, channelizing, diking, undersized culverts and diversions (in the estuary, lower river channel migration zone and sand spit).

The Clallam River is currently listed on the Washington State's Water Quality Assessment Report for 2004 as Category 5 impairment for temperature and a Category 2 water of concern for dissolved oxygen.

Section 404 of the and Section 9 and 10 of the Rivers and Harbors Act stipulate federal regulations that apply to actions affecting waters of the United States. The U.S. Army Corps of Engineers (USACE) regulates actions associated with these acts and provides approvals, permits and water quality certifications, as applicable. The intent of these acts is to restore and maintain the chemical, physical and biological integrity of the nation's waters. If an area is subject to the ebb and flow of the tide, then it's considered navigable water and regulated under Section 10. While there are some exceptions to this rule, it has been determined by Jessica Winkler, Project Manager for USACE's Seattle District regulatory office, the Preferred Alternative site is considered navigable water and would require an individual permit for USACE compliance.

For any project involving construction, demolition, dredging, filling, or excavation in or near water, including wetlands, the applicant is required, as a condition of FEMA funding, to ensure all consultation and permitting requirements are met. This may include USACE permits, a Washington Department of Fish and Wildlife (WDFW) Hydraulic Project Approval (HPA), a shoreline management permit, and water quality certifications. All approvals and permits are covered under the Joint Aquatic Resource Permits Application (JARPA) process, administered by the Washington State Department of Ecology (Ecology).

Executives Order (EO) 11988, Floodplain Management, and EO 11990, Protection of Wetlands, direct federal agencies to avoid, to the extent possible, both short-term and long-term adverse impacts associated with the occupancy and modifications of floodplains and wetlands. FEMA's regulations for complying with both EOs are

promulgated in 44 CFR Part 9 and FEMA applies the Eight-Step Planning Process (See Appendix C – EO 11988 & Appendix D – EO 11990).

According to FEMA's Flood Insurance Rate Map (FIRM), Community Panel No. 530021-0235D (revised December 5, 1989), the Preferred Alternative and Alternate 2 sites are both located in special flood hazard areas inundated by 100-year floods, based on base flood elevations. FEMA's Flood Insurance Study – Clallam County, Washington (Revised February 23, 2001) indicates the contributory drainage basin at the project is about 32 square miles. In addition the 10, 50, 100, and 500-year peak discharges are 4350 cfs, 6280 cfs, 7200 cfs, and 9300 cfs, respectively.

Wetlands are defined by EO 11990 (44 CFR Part 9.4), "those areas inundated or saturated by surface or groundwater with a frequency sufficient to support, or that under normal hydrologic conditions does or would support, a prevalence of vegetation or aquatic life typically adapted for life in saturated or seasonally saturated soil conditions. National policy considers wetlands to be unique and vital natural resources of critical importance and directs federal agencies to provide leadership in minimizing the destruction, loss or degradation of wetlands. The U.S. Army Corps of Engineers (USACE) is the federal enforcement agency regarding wetlands. Factors used to define jurisdictional wetlands for Section 404 include hydrophytic wetland plant communities, hydric soils, and wetland hydrology.

A search of the FEMA's Geographic Information System (GIS) database, which includes water resources data on streams, rivers, lakes, sloughs and wetlands, indicates the Preferred Alternative and Alternative 2 both involve wetlands. Much of Clallam Bay has been developed over this wetland complex and the tidal prism has been greatly reduced over time in the estuary. The lower reaches of the Clallam River were mapped as wetlands and marsh in 1934-35. It is a large area that presumably has been influenced by tides.

Jessica Winkler of USACE conducted a site visit of the Preferred Alternative site on March 29, 2005 and concluded wetlands at the site would need to be delineated by a qualified wetlands biologist as part of the USACE permitting process. Winkler noted some opportunities for restoration of wetlands on site, primarily from the removal of the existing bridge abutments and replanting the exposed areas with native vegetation. USACE will look at avoidance and minimization measures during the permit process and determine what, if any, compensatory mitigation may be required due to unavoidable impacts to wetlands caused by the project.

### ***Environmental Consequences:***

#### **Alternative 1 – Relocate Clallam County Park Footbridge and Trail (Preferred Alternative)**

An individual permit would be required by USACE to relocate the bridge. In addition, a USACE 404 permit would be required, as the project has the potential to impact wetlands. Mitigation required by the permit process may include design specifications to minimize or avoid impacts. Full compliance with USACE, including any changes to the

scope of work to implement mitigation, would be a requirement of FEMA funding and would be covered under this EA as long as it meets full compliance requirements of all other existing laws and regulations.

Work above the ordinary high water mark (OHWM) would have minimal, if any, impact due to implementation of BMPs and work windows restrictions required by the overall permit process. Below the OHWM, the potential for impact from sediment and pollutants associated with construction is expected to be minor and short-term, due to the timing of the project. Constructing the bridge abutments and pilings during low flow season would largely avoid impacts to water resources.

In-water work required to construct pilings for the new bridge would likely have a short-term impact on water quality by increasing turbidity and the amount of suspended sediments. This would be an irreversible commitment. Any in-water work would be required to meet full coordination and compliance requirements by USACE, WDFW, NOAA Fisheries (NOAA), the Lower Elwha Klallam Tribal (LEKT) Fisheries, and Makah Fisheries.

Removal of the creosote pilings at the existing site would be considered a beneficial affect, as they are alleged to pose a water quality hazard to fish and their eggs. Pilings proposed for the new bridge location are steel, which is non-toxic and approved by WDFW. In addition, removal of the Fitzpatrick bridge abutments and revegetation of the site would have a beneficial effect, as it would increase the capacity of natural wetland habitat in the project vicinity.

Because the site of the relocation is considered a tidal backwater estuary and includes wetlands, construction has the potential to impact water quality. The extent of potential in-and near-water work would depend on the water level and tidal ebb and flow during the time of construction. Even if the work is done during a window when there is no water in the area, the project would still be considered to have the potential to impact waters of the U.S. (Winkler 2005). In order to meet USACE permitting requirements, the applicant is required to have a qualified wetlands biologist delineate jurisdictional wetlands at the site using the USACE 1987 manual.

The footbridge abutments and trails would be placed in accordance with permit requirements regarding proximity to wetlands. This would ensure wetlands would not be inundated during high water and would provide adequate erosion control to protect the trail. Constructing the bridge abutments and pilings during low flow season at a time when the river mouth has typically been sealed off by the seasonal bar largely avoid impacts to water resources.

With implementation of permitting conservation measures and associated BMPs, the only adverse affects to wetlands from the Preferred Alternative would be from the removal of vegetation associated with the project. This would be mitigated during the USACE permit process.

Generally the EO 11988 8-step decision-making process requirements include: determine whether the project is located in the floodplain; notify the public FEMA's intent to

complete the project and involve the public in the decision-making process; identify and evaluate practicable alternatives; identify potential direct and indirect impacts; minimize potential impacts; and ensure requirements are implemented.

- This alternative would be located in the old river channel (With the current Clallam River mouth location the old channel will become a tidal backwater area.) and floodplain.
- Notice was provided on December 11, 2005 as part of FEMA's disaster cumulative notice for DR-1499. In addition the public notice for this EA will constitute the final notice for EO11988. This EA includes five alternatives (See unit 3.0 ALTERNATIVE ANALYSIS).
- The potential impacts (and impact evaluation) to the flood plain include: Loss of Floodplain Storage (The trails will be constructed "at grade" so the storage would not be impacts. The ramp to the bridge would be elevated using wood, steel, and/or concrete superstructure. The bridge will be elevated above the 100-year flood level (including a debris clearance factor) by steel piles. The lost floodplain storage will be more than compensated for by the removal of the existing bridge piles, approach, abutment, and fill and the abutments for the old Fitzpatrick Bridge). Deflection of Flow (Given the floodplain slope, location, and configuration in relation to the project, the deflection of flow will be minor and limited to area in the immediate vicinity of the project features.) Increase of Flows or Elevations (This project will not add, subtract, and/or restrict flows; therefore, changes in flood elevations would not be altered by the project.) Induce Future Development in the Floodplain (The State and/or County own all of the in this portion of the floodplain. Neither have plans to further develop. Reestablishing the access to the spit will not change the develop pattern or rate in the Clallam Bay vicinity. The project would relocate the bridge and trails to potentially more stable areas; thereby reducing the need for future extensive maintenance/protective measures). Other Floodplain Values (During construction the disturbed areas would be kept to a minimum. Erosion, sediment, and pollution control BMPs would be used. After construction disturbed areas would be revegetated.)
- The potential impacts (and impact evaluation) to the project include: Flood Forces (The bridge and ramp superstructure would be designed to withstand lateral and buoyant forces with debris factors. The new trails would be constructed "at grade" and with gravel surfaces. Flows/forces would remain similar to current low rates, without being accelerated as a result of flowing over a raised road. The bridge structure (beams and deck) would be elevated above the 100-year flood level plus a debris allowance.)
- FEMA funding approval would include conditions (See Appendix E) to ensure requirements are implemented.

### Alternative 2 – Repair the Clallam County Park Footbridge and Trail at Existing Location

Implementation of Alternative 2 is anticipated to result in minor and short-term impacts to water resources, for the same reasons mentioned in Alternative 1. Construction BMPs,

Conservation Measures, and Mitigation Measures would be implemented to minimize project and construction impacts. Site-specific mitigation measures may be required upstream to protect the site from future hazard events and river channel movements. All construction specifications and requirements would be determined by the overall design and permit process to ensure there would not be an adverse impact to water resources.

Alternative 2 is located adjacent to wetlands. However, work would be conducted in a previously disturbed area and utilize BMPs to ensure proper sediment and erosion controls. Therefore, no adverse impact to wetlands is anticipated.

The EO 11988 8-step decision-making process responses follow:

- This alternative would be located in the current river channel.
- Notice was provided on December 11, 2005 as part of FEMA's disaster cumulative notice for DR-1499. In addition the public notice for this EA will constitute the final notice for EO11988. This EA includes five alternatives (See unit 3.0 ALTERNATIVE ANALYSIS).
- The potential impacts (and impact evaluation) to the flood plain include: Loss of Floodplain Storage (There would be no change because the relocate channel would have the same configuration and capacity as the current channel. Deflection of Flow (The new combination reinforced fill would intentionally deflect flows from the bridge abutment to Clallam Bay. Increase of Flows or Elevations (This project will not add, subtract, and/or restrict flows; therefore, changes in flood elevations would not be altered by the project.) Induce Future Development in the Floodplain (The State and/or County own all of the in this portion of the floodplain. Neither have plans to further develop. Reestablishing the access to the spit will not change the develop pattern or rate in the Clallam Bay vicinity. The project would relocate the bridge and trails to potentially more stable areas; thereby reducing the need for future extensive maintenance/protective measures). Other Floodplain Values (During construction the disturbed areas would be kept to a minimum. Erosion, sediment, and pollution control BMPs would be used. The abutment would become an intentional "hard point".)
- The potential impacts (and impact evaluation) to the project include: Flood Forces (The abutment would be designed to withstand lateral and buoyant forces with debris factors; however, because of foundation and littoral drift conditions and the difficulty in establishing permanent erosion control features, considerable maintenance would be expected.)
- FEMA funding approval would include conditions (See Appendix E) to ensure requirements are implemented.

#### Alternative 3 – No Action Alternative

Under the No Action Alternative, site hydrology and water quality would be unaltered from existing post-washout conditions and would not impact the floodplain or wetlands. It is likely the Clallam River channel migration would continue, particularly during high flow events, and further erode the trail on the sand spit. The project site is likely to

remain a minor sediment source to the river for the foreseeable future as portions of the footbridge approach and the western sand spit border of the river's new mouth continue to erode.

Currently the bridge appears stable. The pilings are supporting the structure. Eventually the creosote piles, beams, and bridge deck may deteriorate and gradually collapse and become floating debris. If not removed as it collapses the bridge could become a flow blockage and contribute wash-off from the treated wood.

### **4.3 Vegetation**

Vegetation in the undeveloped areas surrounding the immediate project site is typical of the coastal forests of the Olympic Peninsula. Spruce trees with some alders dominate the deciduous-coniferous tree canopy on each side of the estuary. The tree canopy, along with a dense understory of salmonberries, nootka rose, and other native shrub species, provides shading and limits the density of groundcover and low-lying herbaceous plants. Small localized areas with surface saturation and limited hydrophytic plant species associated with wetlands occur at the interface where the tidal backwater estuary meets the forested sections.

#### ***Environmental Consequences:***

##### Alternative 1 – Relocate Clallam County Park Footbridge and Trail (Preferred Alternative)

For the Preferred Alternative, some initial vegetation removal (clearing and grubbing) would be required for a construction access route, work zone, and placement of the bridge abutments on the southern side of the estuary. The construction access route would be converted to the permanent trail. The construction of the new trail on the spit from the bridge to the existing beach trail would require some clearing and grubbing. About 0.1 acre of native vegetation would be cleared for the project. Clearing of any trees and understory vegetation for the trail would be an irreversible commitment. The project would be designed so clearing would avoid significant trees and ground cover would be left undisturbed to the maximum extent practicable. Plants native to the area would be used to rehabilitate areas necessary for construction but not required for the trail or bridge.

##### Alternative 2 – Repair the Clallam County Park Footbridge and Trail at Existing Location

Under Alternative 2, all work would be conducted in a previously disturbed area; therefore, would not include removal of vegetation. If a bridge extension were required (to connect the northern bridge abutment to the existing beach trail on the spit), it would occur within the footprint of the predisaster combined system. This system is in an area already disturbed from the erosive forces of the river movement. Minor and short-term impacts associated with construction access would be limited to the existing path and is not expected to have a significant impact.



### Alternative 3 – No Action Alternative

Under Alternative 3, no construction would occur and vegetation would remain unaltered from current conditions. Continued erosion on the north approach of the footbridge may further reduce vegetative cover on the sand spit. Recruitment of woody material into the river channel may increase over time as the channel continues to erode and change its direction.

#### **4.4 Wildlife, Listed Species and Critical Habitat**

Section 7 of the Endangered Species Act (ESA) of 1973 requires federal agencies to determine the effects of their actions on threatened and endangered species of fish, wildlife and plants, and their habitats, and to take steps to conserve and protect these species. In compliance with the ESA, a search of FEMA's Geographic Information System (GIS) database was conducted for the presence of federally listed threatened and endangered species and their critical habitat. Using the GIS data as a base, consultation with the U.S. Fish and Wildlife Service (USFWS), NOAA, WDFW and tribal fisheries biologists was conducted by FEMA to determine the potential effects of the project to species and habitat.

##### **Bald Eagle**

The bald eagle (*Haliaeetus leucocephalus*) is protected as both a state and federal threatened species in Washington, although USFWS has proposed delisting it (64 FR 36454-36464). From GIS data analysis of federally listed species, FEMA was able to determine the proposed project is located in bald eagle habitat. Consultation with Suzy Lutey, USFWS, indicated there is a cluster of three bald eagle nests located east of the Preferred Alternative site. The closest nest is about 1/3 mile from the project area.

Prey availability and disturbance from human activities such as construction are considered important factors affecting bald eagle productivity and survival. Human activities near nest sites during the nesting season can disturb eagles and lead to nest abandonment or reduced reproductive success. Bald eagles typically nest in large, mature or old growth trees and use the same nest over successive years. In Washington, courtship and nest building activities typically begin in January and February and egg laying begins in March or early April. The eaglets hatch in mid-April or early May and fledge in mid-July. For this reason, no work is allowed within the line of site from an eagles' nest from January 1 to August 15.

##### **Marbled Murrelet**

In addition to bald eagles, marine and freshwater ducks and shorebirds use the area for foraging and refuge, and the area is known to have summer foraging and fledging habitat for the marbled murrelet (*Brachyramphus marmoratus*) according to WDFW data used by USFWS. Marbled murrelets were listed as threatened by USFWS on October 1, 1992, and are currently listed as threatened with WDFW.

The murrelets are year-round residents on Washington marine waters. They forage in sheltered waterways and harbors generally within 1.2 miles of shore. Pacific sand lance constitutes over 65 percent of their diet, especially in the breeding season. Murrelets nest in mature and old growth forests within 60 miles of marine waters. In consultation with USFWS, it was determined there would be *no effect* to marbled murrelets provided the daily work window is limited to the period between 1 hour after sunrise and 1 hour before sunset..

## **Salmonids**

While there are not any federally listed fish species in the project vicinity, the Clallam River supports a number of anadromous fish stocks including coho salmon (*Oncorhynchus kisutch*), fall chum salmon (*O. keta*), steelhead (*O. mykiss*), and sea-run cutthroat trout (*O. clarkia*) populations (Shaffer 2003), and the area has been designated as Essential Fish Habitat (EFH) by NOAA. The river feeds into the Strait of Juan de Fuca, used by migrating species to and from inland marine waters of Puget Sound and British Columbia. NOAA has agreed to defer to the biological consensus of WDFW and tribal fisheries biologists regarding conservation measures and work windows required.

Clallam River supports healthy stocks of spawning coho and steelhead. A total of 1,210 coho redds were counted in 2001 and WDFW data shows river production for coho has been steadily increasing over the last 10 years. Charlie Creek, a tributary of the Clallam River, has the highest coho spawner density of any stream on the Olympia Peninsula (WDFW coho redd counts, 1987-2002).

## **Forage Fish**

The nearshore area adjacent to the sand spit supports forage fish, including surf smelt (*Hypomesus pretiosus*), sand lance (*Ammodytes hexapterus*), and Pacific herring (*Clupea harengus pallasii*). The substrate in the area consists of mixed sand and gravel beds that are documented spawning areas for surf smelt, which spawn during spring and summer months, and sand lance, which spawn in winter and early spring. Sand lance spawning was documented in February 2003, surf smelt spawning was documented on the beach in the summer of 2002, and juvenile smelt and salmon migration occurred along the kelp beds in this area in 2002 (Moriarty et al. 2002; Shaffer 2002). From these studies the beach was designated as critical habitat by WDFW.

Surf smelt are a schooling fish that grow up to nine inches long and are found in shallow nearshore waters. They feed on plankton and in turn become food for seabirds, marine mammals, and a variety of fishes, including salmon. Surf smelt have specific spawning habitat requirements, including substrate and specific tidal elevation for successful spawning. Due to a limited extent of available spawning grounds, the species is vulnerable to shoreline development and construction activities. Construction work closures are required from May 1 through August 31 for any work requiring mechanized equipment (trucks, back-hoes, loaders, dozers) to be on the sand spit beach.

Sand lance populations are widespread within Puget Sound, the Strait of Juan de Fuca and the coastal estuaries of Washington. They are common schooling fish that grow to

eight inches long and spawn in the upper intertidal zone of sand gravel beaches. During the day they feed in open water and at night they burrow into the sand to avoid predation. They are considered an important link in the food chain between zooplankton and larger predators. Fish that feed heavily on sand lance include juvenile salmonids, Pacific cod, Pacific hake and dogfish. Work windows for sand lance include closure from October 15 until March 1 for any work within 10 feet of the OHWM on the beach side of the sand spit.

Pacific herring are common in marine waters of Washington State. As forage fish, herring play an important role in the diets of many marine organisms. They are also popular as recreational fishing bait and play a significant role in commercial and subsistence fishing. Unlike other forage fish, herring do not utilize beach substrates to deposit their eggs. Instead, they deposit transparent adhesive eggs on intertidal and shallow subtidal sea grasses and marine algae.

Clallam Bay was included in a WDFW study conducted during February and March 2002 to determine the presence of herring spawn. The sampling period was timed to coincide with the estimated spawning season for the closest known herring spawning stocks elsewhere in the eastern Strait of Juan de Fuca. No spawning was detected from the 36 samples taken at Clallam Bay. Spawning is directly related to the stock biomass, and if stocks are down (as they are now in many parts of Puget Sound) spawning activity will be lower. It is important to note, however, that two months of surveying within one year is not considered sufficient to determine whether or not the area is used by spawning herring. In consultation with WDFW, it was determined there would not be any work windows required for Pacific herring.

### Bull Trout

Although bull trout (*Salvelinus confluentus*) have not been documented in the area, the presence of surf smelt and sand lance makes their occurrence a possibility and USFWS has requested work windows for bull trout be included as part of project approval. Coastal/Puget Sound bull trout were listed as threatened under the ESA on November 1, 1999. They prefer cold, unpolluted water, spring- and groundwater-influenced systems with loose gravel substrate, a low gradient, and bank cover for spawning.

### Construction Closures and Work Windows

The following table indicates seasonal closures and work windows established to protect critical species and their habitat by each species' applicable regulatory agency.

Species/ Work Closure	J	F	M	A	M	J	J	A	S	O	N	D
Salmon (Feb. 15-July 15)												
Bull Trout (Feb. 15-July 15)												
Bald Eagle (Jan. 1-Aug. 15)												
Marbled Murrelet	(Work between 1 hour after sunrise and 1 hour before sunset.)											
Work Permitted												

**Figure 4.4-1 – Construction closures and work windows.**

## **Fish Passage**

Seasonal closures that occur naturally at the Clallam River's mouth have been an ongoing concern regarding fish passage. To address these concerns, hydraulic permits from the state for digging a river mouth were requested seven times between 1977 and 2002. All river mouth excavations were done in response to fish passage being completely blocked during the period of springtime out migration of juvenile salmonids or in anticipation of the fall adult salmon returns. In most instances, the river mouth naturally re-closed within days of being mechanically opened. In spring of 2004, there was another stranding that included chum and coho salmon smolts and adult steelhead. At the request of tribal fisheries biologists from the Makah Tribe and Lower Elwha Klallam Tribe (LEKT), WDFW granted emergency permission to breach the spit. It was breached on the high to low tide cycle and it left the river open for 10 days and saved thousands of fish (Shellberg 2005).

### ***Environmental Consequences:***

#### **Alternative 1 – Relocate Clallam County Park Footbridge and Trail (Preferred Alternative)**

While some habitat would be affected by clearing about 0.1 acre for the trail relocation and installation of the bridge abutments, it is not anticipated to have a long-term adverse affect on critical habitat or species.

Noise, vibration, and visual disturbance of construction activities may impact bald eagles that forage or roost in the action area; therefore, construction activity would be limited to the period outside the nesting season in established work windows. Noise disturbance from pile driving would be kept within ambient noise and activity levels already present at the site by using a vibratory hammer. The proposed project *may affect, but is not likely to adversely affect* bald eagles. The known eagle nests are greater than ¼ mile from the Preferred Alternative site and eagles are highly mobile and can avoid the project area if they are disturbed by project activities.

While there are no known marbled murrelet nest sites in the project vicinity, their occurrence in the area for foraging has been substantiated by WDFW data. By adhering to construction time limits (the period between 1 hour after sunrise and 1 hour before sunset), the Preferred Alternative would have *no effect* to marbled murrelets.

The proposed location of the new trail continues along the property line to the south. It passes an open fen adjacent to two tidal distributaries that are below the OHWM and are; therefore, fish habitat at high tide. Keeping the trail adjacent to the property line on the south avoids this area and does not have an affect on fish habitat.

An increase in turbidity in surrounding waters due to construction has the potential to impact aquatic life with multiple effects due to the increase of sediment in the water. Fine sediment can damage or clog gills in fish and reduce their ability to uptake dissolved oxygen from the water. An increase in turbidity also reduces fish foraging and predator

avoidance activities. All work will be required to comply with BMP conditions and work windows established in the permitting process to ensure there would be little, if any, turbidity. WDFW determined work windows would not be required for sand lance or surf smelt, as construction would occur outside the area with a potential to affect those species.

#### Alternative 2 – Repair the Clallam County Park Footbridge and Trail at Existing Location

Alternative 2 would not involve work outside of the existing footprint for repairs and reconstruction. For the same reasons cited for the Preferred Alternative, work windows and BMPs would be implemented to ensure there would not be an adverse affect on wildlife, listed species or critical habitat. The project would have the potential to have long-term effects on the channel migration capability of the river and conservation measures would be required by the permit process as mitigation to stabilize and protect the footbridge. These measures would potentially require work in previously undisturbed areas and would be required to follow all permitting and work window requirements.

#### Alternative 3 – No Action Alternative

The No Action Alternative would avoid potential construction impacts at the project site and would have no adverse effects wildlife, listed species or critical habitat. Human disturbance of the area would be reduced because of lack of foot access.

### **4.5 Essential Fish Habitat**

The Magnuson-Stevens Fishery Conservation and Management Act, as amended by the Sustainable Fisheries Act of 1996 (Public Law 104-267), requires federal agencies to consult with NOAA Fisheries on activities that may adversely affect Essential Fish Habitat (EFH). The object of this EFH assessment is to describe potential adverse effects to designated EFH for federally managed West Coast groundfish, Pacific salmon and coastal pelagic species. The EFH assessment describes conservation measures proposed to avoid, minimize, or otherwise offset potential adverse effects to designated EFH resulting from the Preferred Alternative.

EFH for West Coast groundfish is defined as:

“...the aquatic habitat necessary to allow for groundfish production to support long-term sustainable fisheries for groundfish and for groundfish contributions to a healthy ecosystem. Descriptions of groundfish EFH for each of the 83 species and their life stages result in more than 400 EFH identifications. When these EFHs are taken together, the groundfish EFH includes all waters from the mean higher high water line, and the upriver extent of saltwater intrusion in river mouths, along the coasts of Washington, Oregon and California seaward to the boundary of the U.S. Exclusive Economic Zone (EEZ) (370.4 km offshore).”

EFH for Pacific salmonids is defined as:

“...those waters and substrate necessary for salmon production needed to support a long-term sustainable salmon fishery and salmon contributions to a healthy ecosystem. To achieve that level of production, EFH includes all those streams, lakes, ponds, wetlands, and other currently viable water bodies and most of the habitat historically accessible to salmon in Washington, Oregon, Idaho, and California. In the estuarine and marine areas, salmon EFH extends from the nearshore and tidal submerged environments within state territorial waters out to the full extent of the EEZ offshore of Washington, Oregon, and California north of Point Conception. Freshwater EFH for Pacific salmon includes all those streams, lakes, ponds, wetlands, and other water bodies currently, or historically accessible to salmon in Washington, Oregon Idaho, and California, except areas upstream of certain impassable man-made barriers (as identified by the Pacific Fishery Management Council), and longstanding, naturally-impassable barriers (i.e., natural waterfalls in existence for several hundred years).”

EFH for coastal pelagic species is defined as:

“The east-west geographic boundary is all marine and estuarine waters from the shoreline along the coasts of California, Oregon, and Washington offshore to the limits of the EEZ and above the thermocline where sea surface temperatures range between 10°C to 26°C. The southern boundary of EFH is the US-Mexico maritime boundary. The northern boundary of the range of coastal pelagic finfish is more dynamic and variable due to the seasonal cooling of the sea surface temperature. The northern EFH boundary is, therefore, the position of the 10°C isotherm which varies both seasonally and annually.”

Due to the location of the Preferred Alternative, EFH consideration applies to all three classifications listed above. The change in location of the bridge will not change the baseline condition in the project vicinity. FEMA has determined the construction phase of the project would have *no effect* on the EFH of West Coast groundfish, coastal pelagic species, of Pacific salmonids, provided the conservation measures listed below are followed (a condition of FEMA funding).

#### **4.6 Historic, Archaeological and Cultural Resources**

Consideration of impacts to cultural resources is mandated under Section 106 of the National Historic Preservation Act (NHPA) of 1966, as amended. Federal agencies are required to take into account the effect of their actions on any district, site, building, structure, or object that may be potentially impacted by a proposed project. Impacts to archaeological and cultural resources also need to be addressed whenever any previously undisturbed area may be impacted, including excavation at construction sites. As defined in 36 CFR Part 800.16(d), the Area of Potential Effect (APE) is “the geographic area or areas within which an undertaking may directly or indirectly cause changes in the character or use of historic properties, if any such properties exist.”

More than 12,000 years ago the first inhabitants of the North Olympic Peninsula arrived in the area that was to become Clallam County. It has been estimated, by the late 1700s,

the Native American population numbered over 4,000 individuals, including over 2,000 members of the S'Klallam tribe living in 17 coastal villages spread from Discovery Bay to Clallam Bay. In addition, the Makahs and Ozettes numbered more than 2,000 individuals in villages near Neah Bay and Lake Ozette. In 1990, the U.S. census found 2,695 Native Americans residing within Clallam County, with many living on reservations that were established in the 1850s.

FEMA's current GIS database for historical and archaeological sites listed with the Washington State Office of Archaeology and History (OAHP) determined there are not any mapped sites in the project area. Rob Whitlam, OAHP archaeologist, was consulted by telephone regarding the project and said no further consultation with OAHP would be required. However, he encouraged FEMA to include the tribes in the area to participate in the review process regarding tribal cultural resources that may be present. In addition OAHP would like to receive a copy of any archaeological surveys conducted.

In accordance with EO 13084, Consultation and Coordination with Indian Tribal Governments, FEMA is mandated to establish regular and meaningful consultation and collaboration with Indian tribal governments in the development of regulatory practices that may significantly or uniquely affect their communities. The LEKT and Makah Tribe were each contacted and provided with project information and photos. Both tribes requested an archaeological survey be conducted in the Area of Potential Effects (APE) of the project. The LEKT noted there was a large Klallam Village in the vicinity at one time and requested they be allowed to be present for any testing and monitoring required by the survey.

During coordination for the archaeological survey, it became apparent territorial disputes have existed for hundreds of years between the two tribes. These disputes continue to remain to some extent today. After numerous phone calls and written correspondence with both tribes, it was agreed each tribe felt satisfied with the survey being conducted by Dr. Gary Wessen, a noted archaeologist for the region. Dr. Wessen agreed to coordinate with both tribes during completion of the survey.

### ***Environmental Consequences:***

#### **Alternative 1 – Relocate Clallam County Park Footbridge and Trail (Preferred Alternative)**

The Preferred Alternative is located in an area considered to have a potential for historic and cultural resources. An archaeological survey of the APE is required before the project will be funded. Should any potentially historic or archaeological significant materials be discovered during the survey, the applicants would be required to consult with FEMA, the LEKT, Makah Tribe, OAHP, and EMD for further guidance. Concurrence with the tribes and OAHP regarding how to proceed would be required. The issuance of a Finding of No Significant Impact (FONSI) and funding for the Preferred Alternative would not be approved until it can be determined no historic, archaeological or cultural resources would be affected.

Should any potentially historic or archaeological significant materials be discovered during project construction or staging of equipment, all activities on the site shall be halted immediately and the County and State Parks shall consult with FEMA, the tribes, OAHF, and EMD for further guidance. Given the implementation of these measures, the Preferred Alternative would not affect historic, archaeological or cultural resources and would be in compliance with Section 106 of the NHPA.

#### Alternative 2 – Repair the Clallam County Park Footbridge and Trail at Existing Location

No historic, archaeological or cultural resources are located in the APE for Alternative 2 and the potential of finding something is considered low to none. Construction would occur within the footprint of the existing bridge and associated path, in an area that has been previously disturbed. The same process detailed for Alternative 1 would be followed, should any potentially historic or archaeological significant materials be discovered during construction. Therefore, no historic properties would be affected by this action.

#### Alternative 3 – No Action Alternative

Under the No Action Alternative, there would not be any additional construction and therefore would not result in impacts to historic, archaeological or cultural resources. It is possible some artifacts may be in or near the existing footbridge and trail prism, and they could be affected by continued erosion. The extent of this possibility is unknown.

### **4.6 Hazardous Wastes and Materials**

Hazardous materials and toxic wastes are managed under state and federal permitting requirements for staging, handling, storage, treatment, and disposal. The Resource Conservation and Recovery Act (RCRA) would regulate any hazardous wastes encountered. The objective of RCRA is to prevent release and impacts from hazardous materials to human health and the environment.

The creosote treated pilings at the existing footbridge are proposed to be removed. The piles for the relocated bridge would be steel pilings. Creosote is a wood preservative containing polynuclear aromatic hydrocarbons (PAHs) used to extend the life of wood in harsh environments since 1865. Public concern has been raised by the recognition creosote contains many of the 16 PAHs known to be acutely and chronically toxic to marine animals. Several of these compounds, most notably benzo[a]pyrene, can degrade to carcinogenic, teratogenic and mutagenic intermediates during metabolism.

Due to the complex molecular structure of PAHs it is difficult to degrade biologically. As with most potentially harmful substances, pathological responses are a matter of concentration and the length of time of exposure. A concern regarding the potential to release toxic PAHs into the water from existing pilings was cited in correspondence WDFW correspondence (8/1/04) to Coastal Geologic Services, Inc., regarding the preliminary assessment report they prepared on July 2004 on Clallam River mouth trends and island access options. During FEMA's preliminary consultation regarding this project with Bob Burkle, WDFW biologist, he has stated WDFW would like to see the



pilings removed, as they are considered to pose a water quality hazard to fish and their eggs.

In studies conducted to better predict and understand environmental risks from creosote, it has been determined small amounts of PAHs are lost from creosote treated wood. These studies indicate the largest concentrations of PAHs accumulate in sediments surrounding structures in aquatic environments and do not occur at significant levels in the water column, as the PAHs associated with creosote are hydrophobic (Brooks 1997).

Results from studies on bioconcentration and bioaccumulation of PAHs in the marine environment indicate PAHs in vertebrates and arthropods are rapidly metabolized and excreted. Data suggests that PAHs are not persistent in the tissues of aquatic species and that the movement of PAHs through the food chain to higher trophic levels is minimal, if it occurs at all. One study conducted on mussels from treated pilings suggested as pilings age, the more toxic components leach out, or are degraded (Dunn and Stitch; 1976). One other study suggests that before BMPs were used for treating pilings (used after 1992), pilings were frequently over treated, which significantly increases the migration rate of creosote (Brooks 1997).

In addition to concerns regarding the existing creosote pilings, visual observation of Preferred Alternative site revealed the existence of two diesel tanks immediately adjacent to the proposed site of the new trail on the southern side. It is not clear if the tanks are on private property or public (State or County) land. The drums are considered to have the potential for hazardous materials, substances or conditions. The WDFW has stated their ownership would need to be determined and removal may be required by the permitting process. Permitting would also require implementation of BMPs to ensure only very limited amounts of oils and other lubricants would be stored and used at the construction site.

### ***Environmental Consequences:***

#### **Alternative 1 – Relocate Clallam County Park Footbridge and Trail (Preferred Alternative)**

Relocation of the footbridge and trail would not disturb any hazardous materials or create any long-term potential hazard to human health. The removal and disposal of the creosote pilings and existing diesel tanks (if determined necessary) may have short-term and relatively minor effects. For the long term, this would be considered a beneficial affect. If hazardous constituents were unexpectedly encountered in the project area during construction operations, appropriate measures for the proper assessment, remediation and management of the contamination would be initiated in accordance with applicable federal, state and local regulations. The contractor would take appropriate measures to prevent, minimize, and control the spill of hazardous materials in the construction staging area, according to the specifications of applicable permits required for the project.

#### **Alternative 2 – Repair the Clallam County Park Footbridge and Trail at Existing Location**

Construction at the existing site would not disturb any hazardous materials or create any potential hazard to human health that don't already exist. The creosote pilings at the existing site would not be removed and would continue to pose an undetermined risk to water quality from the release of PAHs into the surrounding sediment. It is possible this could pose a risk to aquatic life over time, but the extent of this possibility remains unknown. The diesel tanks would remain in the current location and condition.

#### Alternative 3 – No Action Alternative

The No Action alternative would not disturb any hazardous materials or create any potential hazard to human health. The creosote pilings at the existing site would not be removed and would continue to pose an undetermined risk to water quality from the release of PAHs into the surrounding sediment. It is possible this could pose a risk to aquatic life over time, but the extent of this possibility remains unknown.

#### **4.7 Socioeconomic and Environmental Justice (EO 12898)**

Executive Order 12898, Environmental Justice, directs federal agencies to identify and address, as appropriate, disproportionately high and adverse human health or environmental effects on minority and low-income populations in the United States resulting from federal programs, policies and activities.

The Preferred Alternative and Alternative 2 are both located within the town limits of Clallam Bay. The 2000 U.S. Census Bureau lists the immediate population of Clallam Bay at 550 and the population of the surrounding area as 1,484. The towns of Clallam Bay and Seiku are two miles apart and connected by Highway 112. They have a combined Chamber of Commerce that currently lists the population of the two towns as 1600. Both towns are known for the quality of sport fishing, bird watching, beaching, combing, surfing, kayaking, and scuba diving.

Logging and the wood products industry formed the basis for economic growth in the county until its decline in the early 1990s due to government restrictions on log harvesting and exports. Now the largest employer in the area is the Clallam Bay Corrections Center, located two miles south of Clallam Bay. The facility opened in 1985, was expanded in 1992, and currently houses approximately 900 inmates. There are 400 full time correction employees, along with 30 members of the staff and faculty from Peninsula College who provide adult offender education and staff training programs. Other industries providing employment in the area include recreation, accommodation and food service, retail trade, forestry, fishing and hunting, and education, health and social services.

The following is included in the 2000 census for the town of Clallam Bay:

- ◆ Over 83% of the population is white, 10.2% are Hispanic or Latino, 4.5% are American Indian, 7.1% are some other race, 3.5% are two or more races, and .9% are black;
- ◆ The median resident age is 40.1 years, the median household income is \$30,476 annually, and the median house value is \$105,000; and

- ◆ Among persons 25 years and older, 70.5% are high school graduates or higher, and 9.4% have a bachelor's degree or higher.

Historically, the Olympic Peninsula has been a geographically remote area dominated by large landowners. Times are changing, however, and large land holdings previously kept in forestry are being subdivided for development and residential densities along the shoreline are increasing rapidly.

### ***Environmental Consequences:***

#### Alternative 1 – Relocate Clallam County Park Footbridge and Trail (Preferred Alternative)

The County does not have a disproportionate number of minority or low-income persons or persons with few years of formal education. The Preferred Alternative would not have a disproportionately high or adverse effect on any low-income or minority populations, would not cause adverse economic impacts, and is compliant with EO 12898.

#### Alternative 2 – Repair the Clallam County Park Footbridge and Trail at Existing Location

For the same reasons cited in the Preferred Alternative, Alternative 2 would not have a disproportionately high or adverse effect on any low-income or minority populations and complies with EO 12898.

#### Alternative 3 – No Action Alternative

The No Action Alternative would mean the County and State Parks would not receive funding to relocate the Clallam County Park footbridge and associated trail. Alternative 3 would not have a disproportionately high or adverse effect on any low-income or minority populations and complies with EO 12898.

## **5.0 CUMULATIVE IMPACTS**

Cumulative impacts are those effects on the environment resulting from the incremental effect of the action when added to past, present and reasonably foreseeable future actions, regardless of what agency (federal or nonfederal) or person undertakes such other actions. Cumulative effects can result from individually minor but collectively significant actions taking place over a period of time.

Clallam County has experienced continued population growth. However, there are no other known projects that, when added to the Preferred Alternative, would have a cumulative impact on the human environment.

As a result of the Preferred Alternative the Old Fitzpatrick Bridge abutment will be removed from the old river channel. In addition, debris, pipes, and asphalt pieces will be removed from the vicinity of the existing path on the spit.

## 6.0 PUBLIC INVOLVEMENT

Loss of access to the beach has become a serious problem for the citizens of the County, including Clallam Bay and Seiku, and for visitors and tourists, who together form a cornerstone of the local economy, according to the Clallam Bay–Seiku Chamber of Commerce.

In 2002, a portion of the footbridge landing and trail were damaged during flooding. This led to local controversy regarding what should or should not be done regarding re-opening the river's mouth. Some citizens wanted the river's mouth to be reconstructed and maintained at the western border of the bay to relieve pressure from flooding on the footbridge, reduce flooding in the side channel areas, and to alleviate perceived water quality problems in the lower river. In January and February of 2003, WDFW convened a technical committee with members of local, tribal, and state management agencies and interested local citizens to review and discuss technical and recreational issues of the river. Concerns with the citizen proposal to move the river mouth identified by the technical committee included:

- The minor and temporary nature of erosion on the spit, which is a natural process;
- Increased erosion to landowners along the lower river just upstream of the proposed river mouth location that would occur if the river mouth was moved to the western border;
- Disruptions to the transport of sediments by altering the river's mouth, thereby causing the river to close off earlier in the year and disrupting biological functions from subsequent erosion and flooding;
- Environmental consequences, including impacts to smolt outmigration and steelhead migration, surf smelt and sand lance habitat;
- Economic consequences of long term maintenance, including channelizing, armoring, and dredging, which would likely be required in order to maintain the river mouth at the western end.

It was agreed at these meetings that moving the location of the river mouth for access was not an emergency and a short-term action plan was implemented instead to repair the damaged section of the footbridge landing and trail using native fill. Wood was also anchored along the reconstructed area in an attempt to deflect future wave and riverine energy. For long-term management, modification of the river mouth in an attempt to alleviate public concerns over public access was not recommended due to the minor and temporary impact to public access structures, and the significant environmental, liability, and economic concerns associated with the proposed modification. The group as a whole agreed to work to diversify access, restore lower river function, and further understand how the lower Clallam River ecosystem and humans interact for successful management of this locally prized area.

As part of the permitting process, a public hearing may be required for the USACE permits. In addition, a public notice is required for this draft EA. The public will be provided an opportunity to comment on the EA for 30 days after the publication of the

public notice. The notice identifies the action, location of the proposed site, participants, location of the draft EA, and who to write to provide comments. Copies of the public notice will be posted at:

Clallam Bay Library  
16990 Highway 112  
Clallam Bay, WA 98326

Clallam Bay-Sekiu Chamber of Commerce  
16795 Highway 112  
PO Box 355  
Clallam Bay, WA 98326

Clallam Bay Grocery  
16810 Highway 112  
Clallam Bay, WA 98326

Clallam Bay Post Office  
17203 Highway 112 Suite #1  
Clallam Bay, WA 98326

Clallam Bay Park near the trail entrance and near the restrooms.

And published in the Peninsula Daily News and the Forks Forum.

EA will be available for review at:

Clallam Bay Library  
16990 Highway 112  
Clallam Bay, WA 98326

Clallam Bay – Sekiu Chamber of Commerce  
167 Highway 112  
Clallam Bay, WA 98326

Clallam County Court House  
223 East 4<sup>th</sup> Street, Room 180  
Port Angeles, WA 98362

In addition, the draft EA will be sent to the LEKT, Makah Tribe, and OAHP.

## 7.0 REQUIRED PERMITS AND COMPLIANCE

State Parks and the County are required to obtain and comply with all required local, state and federal permits and approvals prior to implementing the Preferred Alternative. This includes, but is not limited to, USACE permits, WDFW HPA, shoreline management permits, water quality certifications and the conservation measures established for

Essential Fish Habitat (Section 4.5 of this document). Development at the Preferred Alternative site shall be in substantial compliance with the approved site plan. Any expansion or alteration of this use, beyond that initially approved would require a new or amended permit.

In the event historically or archaeologically significant materials or sites (or evidence thereof) are discovered during the implementation of the project, the project shall be halted immediately and all reasonable measures taken to avoid or minimize harm to property. State Parks and the County would then be required to consult with FEMA, DEM, and OAHP for further guidance.

## 8.0 CONCLUSION

The findings of the draft EA conclude the proposed relocation of Clallam Bay Park footbridge and trails for the County and State Parks would result in no significant environmental impacts to the human or natural environment. The Preferred Alternative meets the requirements of a Finding of No Significant Impacts (FONSI) under NEPA and the preparation of an Environmental Impact Statement (EIS) is not required.

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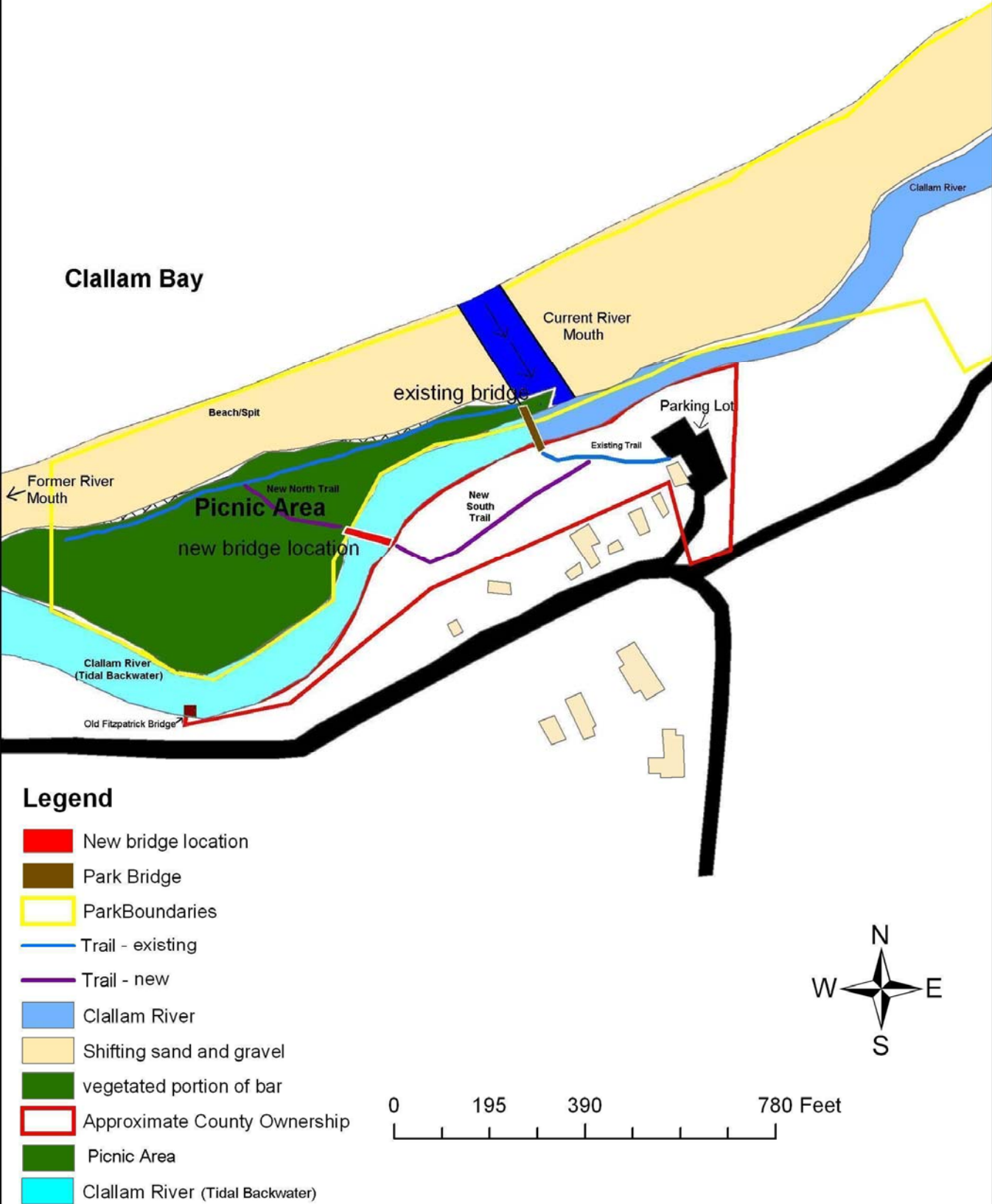


# Appendix A - Regional Overview - Clallam Bay, Washington

## Clallam Bay Park Foot Bridge and Trail Relocation



# Appendix B - Clallam Bay Park Bridge Relocation Site Map



## Appendix C

### EXECUTIVE ORDER 11988 FLOODPLAIN MANAGEMENT – CHECKLIST (44 CFR Part 9)

**TITLE:** Clallam Bay Park (Footbridge & Trail)

**PROPOSED ACTION:** The Scope of Work for this project includes: relocating the existing footbridge 400 feet to the west of its current location, constructing a new trail from the existing trail to the new bridge location (an elevated ramp will connect the at grade trail to the bridge), and constructing a new trail from the bridge to the existing beach trail.

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**APPLICABILITY:** Actions which have the potential to affect floodplains or their occupants, or which are subject to potential harm by location in floodplains.

☐ YES ☒ NO

The proposed action could potentially adversely affect the floodplain.

Remarks: See discussion and analysis in the Draft Environmental Assessment "Clallam Bay Park Footbridge and Trail Relocation" (EA).

☒ YES ☐ NO

The proposed action could potentially be adversely affected by the floodplain.

Remarks: See discussion and analysis in the Draft EA

**IF ANSWER IS NO, REVIEW IS COMPLETED, OTHERWISE CONTINUE WITH REVIEW.**

Mark the review steps required per applicability: ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐ 8

---

**CRITICAL ACTION:**

☐ YES

Review against 500 Year floodplain

☒ NO

Review against 100 Year floodplain



**STEP NO. 1 Determine whether the proposed action is located in the 100-year floodplain (500-year floodplain for critical actions);**

**Flood Hazard data available (check the box that applies)**

- ☒ **YES** ☐ **NO** The project is located in a 100 Year floodplain as mapped by FIRM Panel No: 530021 0235D, Dated: 12/5/1989.
- ☐ **YES** ☐ **NO** The project is located in a 500 Year floodplain as mapped by FIRM Panel No. , Dated .
- ☐ **YES** ☐ **NO** The project is located in a floodplain as mapped by a FEMA draft/preliminary study. Name Dated .
- ☐ **YES** ☐ **NO** The project is located in a floodplain as mapped by the local community. Name Dated .
- ☐ **YES** ☐ **NO** The project is located in a floodplain as mapped by another Agency (State, Corps, USGS, NRCS, and etc.) Agency, Name Dated ,

**Flood Hazard data not available**

- ☐ **YES** ☐ **NO** The proposed action is subject to flooding based on evaluation from soil surveys, aerial photos, site visits and other available data. Evaluation material used in determination:
- ☐ **YES** ☐ **NO** FEMA assumes the proposed action is subject to flooding based upon on previous flooding of the facility/structure.

**IF ANY OF THE ANSWERS ARE YES, CONTINUE WITH THE FOLLOWING STEPS, OTHERWISE REVIEW IS COMPLETE.**

---

**STEP NO. 2 Notify the public at the earliest possible time of the intent to carry out an action in a floodplain, and involve the affected and interested public in the decision-making process.**

- ☒ Notice was provided as part of a disaster cumulative notice (DR-1499).
- ☐ Project Specific Notice was provided by: FEMA's Public Notice for Draft Environmental Assessment Prepared May 2005.

Type of Public Notice:

- ☒ Newspaper, (name:Disaster Area papers)
- ☐ Post Site, (location: )
- ☐ Broadcast, (station: )
- ☐ Direct Mailing, (area: )
- ☐ Public Meeting, (dates: )
- ☐ Other:

**Date of Public Notice:** DR-1499: 12/11/2003

---

**STEP NO. 3**      **Identify and evaluate practicable alternatives to locating the proposed action in a floodplain (including alternatives sites, actions and the "no action" option). If a practicable alternative exists outside the floodplain, FEMA must locate the action at the alternative site.**

**Alternative Options**

☐ YES ☒ NO

Is there a practicable alternative site location outside of the 100-Year floodplain?

Comment: See Draft EA for identification and discussion of Alternatives Considered

☐ YES ☐ NO

For Critical Actions, is there a practicable alternative site location outside of the 500-Year floodplain?

Site location:

☐ YES ☒ NO

Is there a practicable alternative action outside of the 100-Year floodplain that will not affect the floodplain?

Alternative action:

☐ YES ☒ NO

Is the NO Action alternative the most practicable alternative?

**IF ANY ANSWER IS YES, THEN FEMA SHALL TAKE THAT ACTION AND THE REVIEW IS CONCLUDED.**

---

**STEP NO. 4**      **Identify the potential direct and indirect impacts associated with the occupancy or modification of floodplains and the potential direct and indirect support of floodplain development that could result from the proposed action. 44CFR Part 9.10**

☐ YES ☒ NO

Is the Proposed Action based on incomplete information?

☒ YES ☐ NO

Is the proposed action in compliance with the NFIP?

☐ YES ☒ NO

Does the proposed action increase the risk of flood loss?

See discussion and analysis in the Draft" (EA). EA

☐ YES ☒ NO

Will the proposed action result in an increased base discharge or increase the flood hazard potential to other properties or structures?

☒ YES ☐ NO

Does the proposed action minimize the impact of floods on human health, safety and welfare?

☒ YES ☐ NO

Will the proposed action induce future growth and development, which will potentially adversely affect the floodplain?

☐YES ☒NO

Does the proposed action involve dredging and/or filling of a floodplain?

☐YES ☒NO

Will the proposed action result in the discharge of pollutants into the floodplain?

☒YES ☐NO

Does the proposed action avoid long and short-term adverse impacts associated with the occupancy and modification of floodplains?

☐YES ☒NO

Will the proposed action result in any indirect impacts that will affect the natural values and functions of floodplains?

**NOTE: If wetlands are near or potentially affected, refer review to the Environmental Section.**

☐YES ☒NO

Will the proposed action forego an opportunity to restore the natural and beneficial values served by floodplains?

☒YES ☐NO

Does the proposed action restore and/or preserve the natural and beneficial values served by floodplains?

☒YES ☐NO

Will the proposed action result in an increase to the useful life of a structure or facility?

**Comment:** See discussion and analysis in the Draft EA

---

## STEP NO. 5

**Minimize the potential adverse impacts and support to or within floodplains to be identified under Step 4, restore and preserve the natural and beneficial values served by floodplains.**

☒YES ☐NO

Were flood hazard reduction techniques (see technical bulletins) applied to the proposed action to minimize the flood impacts if site location is in the 100-Year floodplain?

If No, Identify Flood Hazard Reduction Techniques required as a condition of the grant:

☒YES ☐NO

Were avoidance and minimization measures applied to the proposed action to minimize the short and long term impacts on the 100-Year floodplain?

If no, identify measures required as a condition of the grant:

☒YES ☐NO

Were measures implemented to restore and preserve the natural and beneficial values of the floodplain.

If no, identify measures required as a condition of the grant:

**Comment:** See discussion and analysis in the Draft EA

**If any answer is no, explain why:**

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**STEP NO. 6**

**Reevaluate the proposed action to determine first, if it is still practicable in light of its exposure to flood hazards, the extent to which it will aggravate the hazards to others, and its potential to disrupt floodplain values and second, if alternatives preliminarily rejected at Step 3 are practicable in light of the information gained in Steps 4 and 5. FEMA shall not act in a floodplain unless it is the only practicable location.**

☒ **YES** ☐ **NO**

The action is still practicable at a floodplain site in light of the exposure to flood risk and ensuing disruption of natural values;

☒ **YES** ☐ **NO**

The floodplain site is the only practicable alternative.

☒ **YES** ☐ **NO**

There is no potential for limiting the action to increase the practicability of previously rejected non-floodplain sites and alternative actions.

☒ **YES** ☐ **NO**

Minimization of harm to or within the floodplain can be achieved using all practicable means.

☒ **YES** ☐ **NO**

The action in a floodplain clearly outweighs the requirement of E.O. 11988.

**Comment:** See discussion and analysis in the Draft EA

---

**STEP NO. 7**

**Prepare and provide the public with a finding and public explanation of any final decision that the floodplain is the only practicable alternative.**

☐

Final Notice was provided as part of the floodplain notice. See EO 11988 checklist.

☐

Notice was provided as part of a disaster cumulative notice.

☒

Project Specific Notice was provided by: The Public Notice for the EA.

Type of Public Notice:

- News) ☒ Newspaper, (name:Forks Forum (weekly) and the Peninsula Daily
- ☒ Post Site, (location:Clallam Bay Library, Court House and SEiku Chamber of Commerce)
- ☐ Broadcast, (station: )
- ☐ Direct Mailing, (area: )
- ☐ Public Meeting, (dates: )
- ☐ Other:

**Comment:** See Public Notice discussion in the Draft EA

**Date of Public Notice:** To Be Determined

**After providing the final notice, FEMA shall, without good cause shown, wait at least 15 days before carrying out the proposed action.**

---

**STEP NO. 8      Review the implementation and post - implementation phases of the proposed action to ensure that the requirements stated in Section 9.11 are fully implemented. Oversight responsibility shall be integrated into existing processes.**

☒ **YES** ☐ **NO** Was Grant conditioned on review of implementation and post-implementation phases to insure compliance of EO 11988?



## Appendix D

### EXECUTIVE ORDER 11990 CHECKLIST

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**FEMA DR: DR-1499**

**PROJECT NO: PW-231 & 294**

**TITLE: Clallam Bay Park (Footbridge & Trail)**

**STEP NO. 1 Determine whether the proposed action is located in a wetland and/or the 100-year floodplain (500-year floodplain for critical actions); and whether it has the potential to affect or be affected by a floodplain or a wetland.**

☒ The project is located in a floodplain as mapped by FIRM No. 530021 0235D Dated: 12/5/1989

☐ The project is not located in a Wetland.

There are wetlands in the vicinity of the project site.

**STEP NO. 2 Notify the public at the earliest possible time of the intent to carry out an action in a floodplain or wetland, and involve the affected and interested public in the decision-making process.**

☐ Not applicable - Project is not located in a floodplain or in a Wetland.

☒ Applicable - Notice has been provided by:

FEMA Region 10: Disaster Cumulative Notice (12/11/2003)

And

FEMA Region 10: Will provide Notice in connection with the Draft Environmental Assessment, "Clallam Bay Park Footbridge and Trail Relocation".

**STEP NO. 3 Identify and evaluate practicable alternatives to locating the proposed action in a floodplain or wetland (including alternatives sites, actions and the "no action" option). If a practicable alternative exists outside the floodplain or wetland, FEMA must locate the action at the alternative site.**

☒ Not applicable - Project is located in the only practicable location.

☐ Applicable - alternatives identified in the Environmental Assessment Document.

See discussion and analysis in the Draft EA.

**STEP NO. 4 Identify the potential direct and indirect impacts associated with the occupancy or modification of floodplains and wetlands and the potential direct and indirect support of floodplain and wetland development that could result from the proposed action.**

- ☐ Not applicable - Project is not located in a floodplain or in a Wetland.
- ☐ Applicable - alternatives identified in the Environmental Assessment Document.

See discussion and analysis in the Draft EA.

**STEP NO. 5 Minimize the potential adverse impacts and support to or within floodplains and wetlands to be identified under Step 4, restore and preserve the natural and beneficial values served by floodplains, and preserve and enhance the natural and beneficial values served by wetlands.**

- ☐ Not applicable - Project is not located in a floodplain or in a Wetland.
- ☒ Applicable - Mitigation measures identified in the Environmental Assessment Document

**STEP NO. 6 Reevaluate the proposed action to determine first, if it is still practicable in light of its exposure to flood hazards, the extent to which it will aggravate the hazards to others, and its potential to disrupt floodplain and wetland values and second, if alternatives preliminarily rejected at Step 3 are practicable in light of the information gained in Steps 4 and 5. FEMA shall not act in a floodplain or wetland unless it is the only practicable location.**

- ☐ Not applicable - Project is not located in a floodplain or in a Wetland.
- ☒ Applicable - Action proposed is located in the only practicable location.
- ☐ Applicable - Action proposed is not located in the only practicable location.

**STEP NO. 7 Prepare and provide the public with a finding and public explanation of any final decision that the floodplain or wetland is the only practicable alternative.**

- ☐ Not applicable - Project is not located in a floodplain or in a Wetland.
- ☒ Applicable - Finding is or will be prepared.

FEMA Region 10: Will provide Notice in connection with the Draft Environmental Assessment, "Clallam Bay Park Footbridge and Trail Relocation".

**STEP NO. 8 Review the implementation and post - implementation phases of the proposed action to ensure that the requirements stated in Section 9.11 are fully implemented. Oversight responsibility shall be integrated into existing processes.**

- ☐ Not applicable - Project is not located in a floodplain or in a Wetland.
- ☒ Applicable - Approval conditioned on review of implementation and post-implementation phases to insure compliance of the order(s).
- ☐ Applicable - Oversight responsibility shall be integrated into existing processes.

## Appendix E

### **Project Conditions and Conservation Measures**

#### **General:**

The applicants shall obtain all required local, state, tribal and federal permits and approvals prior to implementing the Preferred Alternative and comply with any and all conditions imposed. This may include, but is not limited to: USACE permits, WDFW Hydraulic Project Approval (HPA), shoreline management permits and water quality certifications.

The applicant is responsible for selecting, implementing, monitoring and maintaining Best Management Practices (BMPs) to control erosion and sediment, reduce spills and pollution, and provide habitat protection.

#### **Floodplain /Wetland/Water Quality:**

The bridge and ramp superstructure shall be designed to withstand lateral and buoyant forces with debris factors.

The new trails would be constructed “at grade” and with gravel surfaces.

The bridge structure (beams and deck) would be elevated above the 100-year flood level (plus a debris allowance).

Exposed soils shall be revegetated with native materials. Selection shall include evaluation of soils, moisture, water forces, and sun.

Remove the creosote pilings and abutment material and revegetate the exposed areas at the existing site.

Remove the Fitzpatrick bridge abutments and revegetate the exposed areas.

#### **Bald Eagle**

No work is allowed within the line of site from an eagles’ nest from January 1 to August 15.

#### **Marbled Murrelet**

The daily work window will be limited to the period between 1 hour after sunup to 1 hour before sunset.

**EFH** (The following conditions have been developed during the establishment of biological consensus with WDFW, the LEKT and Makah Fisheries for EFH):

1. **TIMING LIMITATIONS:** The project may begin August 1, 2005 and shall be completed by December 31, 2005, provided:
  - a. Work below the OHWM shall not occur once the high flows of fall have caused the river mouth to reconnect with Clallam Bay, for the protection of migrating adult salmonids (generally October 15).
2. **NOTIFICATION REQUIREMENT:** The permittee or contractor shall notify the WDFW Area Habitat Biologist (AHB), the LEKT, and Makah Fisheries of the project start date. Notification shall be received at least three working days prior to the start of construction activities. The notification shall include the permittee's name, project location, starting date for work, and the control number(s) for the HPA.
3. Work shall be accomplished per plans and specifications submitted to the WDFW, except as modified by the HPA process. These plans would reflect design criteria per Chapter 220-110 WAC and would include mitigation procedures to significantly reduce or eliminate impacts to fish resources. A copy of these plans shall be available on site during construction. (NOTE: These plans should include details of trail alignment, topography, wetland delineation, location and number of piling, length and width of bridge and other spanning structures, and locations and details of mitigation areas, specifically removal of the existing bridge abutment and fill, removal of the asphalt on the island, removal of garbage in the wetland, and removal of the old Fitzpatrick Bridge abutments and fill, plus other mitigation as agreed to. Square footage of mitigation should be depicted along with square footage of impact. It should also show the construction route to the island (aka sand spit). The plans do not need to include engineered construction details for HPA purposes.
4. The bridge and trail project shall be designed and located to prevent constriction (either laterally or vertically) of the floodplain or existing or future channels (i.e., the old Clallam River channel). The trail shall either be elevated to allow sufficient passage of water up to the OHWM or built at existing grade, so that flood storage capacity or conveyance is not reduced by the project.
5. All new piling shall be steel and shall be driven using vibratory equipment. Bridge construction and design will be needed as to minimize the number of piles in the water, and minimize the number of piles on or along the sloped banks or slope break of the potential future active channel of the Clallam River. That is, piles near the bridge ends should be placed well back from the edge of the potential active channel.
6. The existing creosote treated pilings at the existing footbridge shall be removed using vibratory equipment and disposed of upland such that they do not enter waters of the state. Removal of additional creosote piles upstream of the existing footbridge could also be included as a mitigation measure, depending on mitigation needs.

7. Equipment to access the south (town) side of the project shall be operated from existing developed uplands or from the approved trail location.
8. Equipment used to access the north (island/spit) side of the project shall be confined to an upland route along the sand spit that connects the island to the mainland in the vicinity of the Spring Tavern. This route shall avoid the OHWM of Clallam Bay by at least 10 feet (measured horizontally, as long as the OHWM is accurately determined especially along the flat areas.. Woody debris along this route may be temporarily relocated and replaced when construction is completed, as long as it is not currently embedded or buried below the surface of ground.
9. Equipment operation on the island/spit shall be limited to the above access route, the footprint of the existing paved areas, and the approved trail location.
10. Tracks of equipment shall not enter the water. Equipment shall be kept free of petroleum products (except to fuel and lubricate in accordance with manufactures instructions), invasive plants, soil, or other contaminants.
11. Bed material, other than material excavated when removing fill or asphalt, shall not be utilized for project construction or fills.
12. Excavated materials shall not be stockpiled below the OHWM or in wetlands outside of the approved equipment operation corridors. All excavated material (abutment fill, asphalt, creosote wood) needs to be end hauled to an appropriate location.
13. Beach area depressions created during project activities shall be reshaped to pre-project beach level upon project completion.
14. All trenches, depressions, or holes created in the beach area shall be backfilled prior to inundation by tidal waters.
15. All manmade debris in the wetland, along the trail location and access corridors, or on the beach that is encountered during excavation or construction shall be removed and disposed of upland such that it does not enter waters of the state.
16. All exposed slopes shall be covered with natural fiber mesh, shall be hydroseeded with non-invasive grass seed, and shall be re-vegetated with natural vegetation according to Department of Ecology guidelines (used in the HPA).
17. Removal or destruction of overhanging bankline vegetation shall be limited to that necessary for the construction of the project.
18. Intertidal wetland vascular plants shall not be adversely impacted due to project activities (e.g., equipment shall not operate, and other activities shall not occur in intertidal wetland vascular plants). If such vegetation is adversely impacted, it shall be replaced using proven methodology.

19. All natural habitat features on the beach larger than 12 inches in diameter, including trees, stumps, and logs, shall be retained on the beach following construction. These habitat features may be moved during construction if necessary, as long as they are not currently embedded.
20. In the event trees larger than 12 inches in diameter would need to be removed from the approved alignment of the trail, they shall be placed in the water below the vegetation line and anchored securely to screw-in type soil anchors sufficient in size and number to secure them in place.
21. Equipment shall be operated from uplands, from the approved trail route, or from pads.
22. Project activities shall be conducted using appropriate BMPs to minimize siltation or any sediment delivery to the beach area and bed and channels or water below the OHWM.
23. Project activities shall not degrade water quality to the detriment of fish life.
24. If a fish kill occurs or fish are observed in distress, the project activity shall immediately cease and WDFW Habitat Program shall be notified immediately.
25. Sawdust, drillings, trimmings, or breakage from treated wood shall be contained with tarps or other impervious materials and prevented from contacting the beach, bed, or waters of the state.
26. Material burning is not allowed below the OHWM.
27. All trails (both sides) shall have low fence barriers to at least partially restrict or deter human access to the surrounding floodplain and habitat surrounding the trail on both sides of the estuarine lagoon to maintain the integrity of floodplain vegetation.
28. Remove fill back to the natural grade at the existing bridge site and pull all creosote log piles and revegetate the surface with conifers (i.e., spruce) and other natural vegetation.
29. Remove the existing asphalt at the existing picnic area and possibly use it as trail ballast on the sand spit.
30. Remove all old pipe and other debris (as a result of human activity) on both sides of the estuarine lagoon within reasonable reach of the project area.
31. Revegetate the sand spit area where asphalt is removed and revegetate (i.e., spruce). Other reforestation mitigation maybe required through the permit process.

32. Remove the abutments of the old Fitzpatrick bridge site and revegetate to compensate for impacts to wetlands from the proposed project, as determined by USACE permitting for the project.



## **Appendix E**

### **PUBLIC NOTICE**

**Federal Emergency Management Agency (FEMA)  
Draft Environmental Assessment (EA)  
Relocation of Clallam Bay Park Footbridge and Trails**

Notice is hereby given that the U.S. Department of Homeland Security's Federal Emergency Management Agency (FEMA) proposes to fund the relocation of Clallam Bay Park footbridge and associated trail in Clallam Bay, Washington. Funding would be provided in accordance with the Robert T. Stafford Disaster Relief and Emergency Assistance Act, Public Law 93-288, as amended. FEMA is proposing to fund 75 percent of the cost of this project through the Public Assistance Program, under the Presidential Disaster Declaration for severe storms and flooding, FEMA-1499-DR-WA.

FEMA prepared a draft environmental assessment (EA) for the proposed project pursuant to the National Environmental Policy Act (NEPA) of 1969 and FEMA's implementing regulations. The EA evaluates alternatives for compliance with applicable environmental laws, including Executive Orders #11990 (Protection of Wetlands), #11988 (Floodplain Management), #13084 (Consultation and Coordination with Indian Tribal Governments), and #12898 (Environmental Justice). The alternatives evaluated include (1) relocating the existing footbridge 400 feet to the west of its current location, constructing a new trail from the existing trail to the new bridge location, and constructing a new trail from the bridge to the existing beach trail; (2) repairing the footbridge and trail at their existing location; and (3) no action.

This notice will constitute the final notice as required by Executive Order 11988, Floodplain Management and Executive Order 11990, Protection of Wetlands. If no significant issues are identified during the comment period, FEMA will finalize the EA and, issue a FONSI and fund the project.

The draft EA is available for review on June 10, 2005 at:

Clallam Bay Library  
16990 Highway 112  
Clallam Bay, WA 98326

Clallam Bay – Sekiu Chamber of Commerce  
16795 Highway 112  
Clallam Bay, WA 98326

Clallam County Court House  
223 East 4<sup>th</sup> Street, Room 180  
Port Angeles, WA 98362

The EA is also available for review online at the FEMA environmental website at <http://www.fema.gov/ehp/docs.shtm>.

Written comments on the draft EA should be directed no later than 5:00 p.m. on July 11, 2005 to Mark Eberlein, Regional Environmental Officer, FEMA Region X, 130 228<sup>th</sup> Street SW, Bothell, WA 98021 or by e-mail to [mark.eberlein@dhs.gov](mailto:mark.eberlein@dhs.gov)

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